



# ***Cost and Software Data Reporting Training***

## **Background/Familiarization Module**

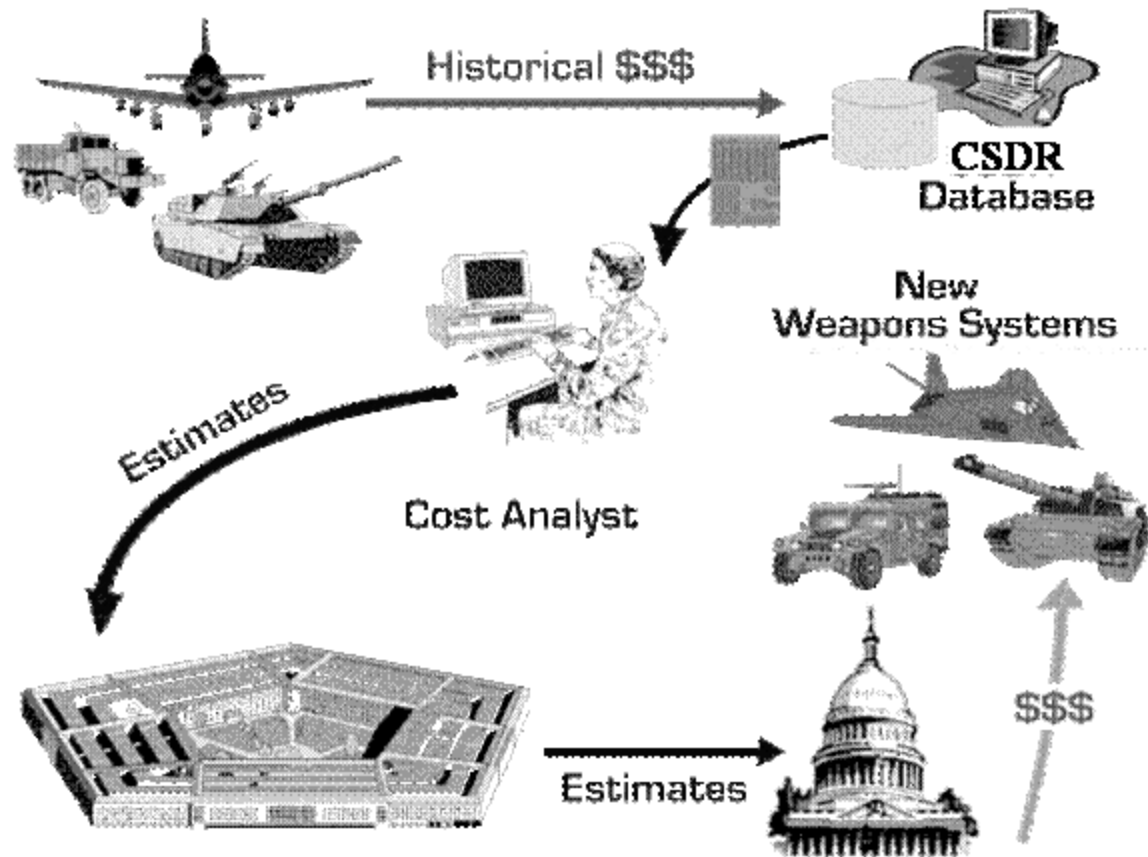
# Schedule

<b>DAY 1</b>	<b>DAY 2</b>	<b>DAY 3</b>
0800 Class Orientation	0800 Contract Planning	0900 Question /
0830 Background / Familiarization Module	0915 SRDR Planning (Part 1)	Answer Session
0945 Break	1015 Break	930 Validation (Part 1)
1000 WBS Module	1030 SRDR Planning (Part 2)	1015 Break
1130 Lunch	1130 Lunch	1030 Validation (Part 2)
1230 RAM Module	1230 Contracting	1130 Lunch
1330 Evolutionary Acquisition	1330 Cost Reporting (Part 1)	1230 SRDR Reporting
1430 Break	1500 Break	1400 Break
1445 Program Planning Module	1515 Cost Reporting (Part 2)	1415 Final Exam
		1615 Wrap-Up

# Lesson Assignment Sheet

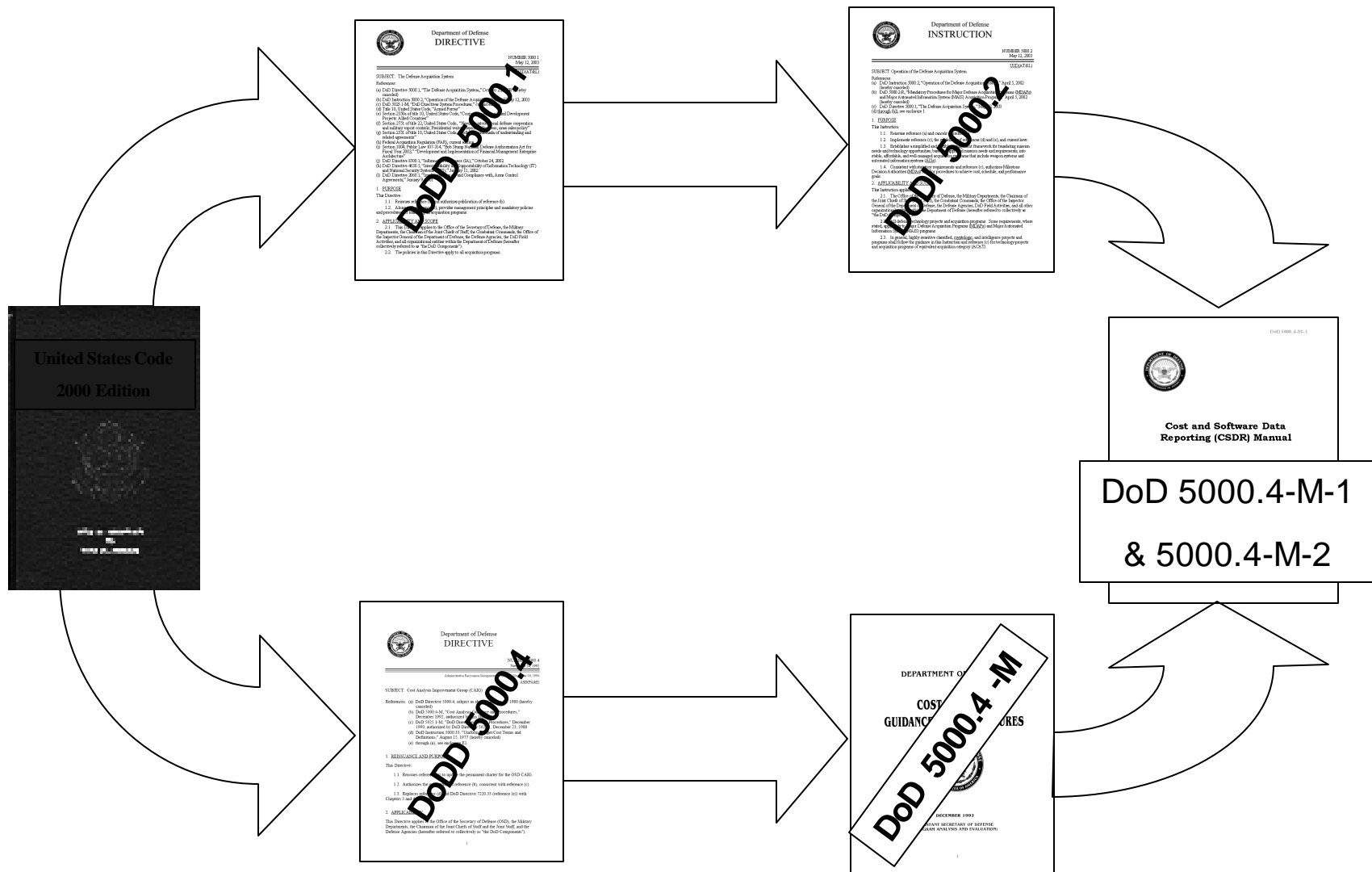
- Objectives:
  - For students to have a working knowledge of all pertinent CSDR guidance.
- Desired Learning Outcomes:
  - Be familiar with all the pertinent DoD Directives, Instructions, and Manuals that precede the CSDR Manual
  - Have a general understanding of how CSDR data benefits the cost analysis community as well as the overall acquisition process
  - Be able to describe the CSDR process from a top-level point of view
- Assignment:
  - REVIEW. CSDR Reference Documents Book
- Reference Material:
  - CSDR Reference Book
  - CSDR Workbook
    - OSD PA&E Briefing, *Legal Foundations for the Role of Cost Analysis in Defense Acquisitions*, Jim Wilson
  - Internet
    - United States Code, 2000 Edition, Title 10, Subtitle A, Part IV, Chapter 144 ([http://www.access.gpo.gov/uscode/title10/subtitlea\\_partiv\\_chapter144.html](http://www.access.gpo.gov/uscode/title10/subtitlea_partiv_chapter144.html))

# CSDRs and the Acquisition Process



To establish this process, DoD has put into place a set of guidance consisting of *Directives, Instructions, Manuals*, and other supporting documents

# DoD Guidance Map

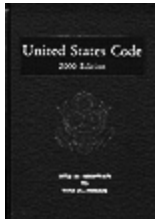


6/1/2006

Module 2: Background & Familiarization

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# Title 10, United States Code, “Armed Forces”

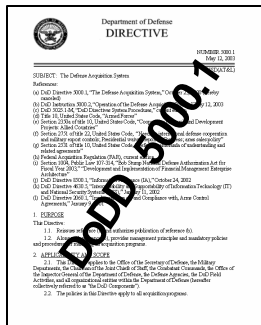


- Subtitle A – General Military Law
  - Part IV – Service, Supply, and Procurement
    - Chapter 144 – Major Defense Acquisition Programs
      - Sec. 2430. Major defense acquisition program defined
      - Sec. 2431. Weapons Dev. and Procurement Schedules
      - Sec. 2432. Selected Acquisition Reports
      - Sec. 2433. Unit Cost Reports
      - Sec. 2434. Independent Cost Estimates
      - Sec. 2435. Baseline Description

The law outlines the *REQUIREMENTS* with which DoD must comply. To ensure compliance, DoD has outlined an acquisition process, commonly referred to as the “5000” series.

# DoD Directive 5000.1

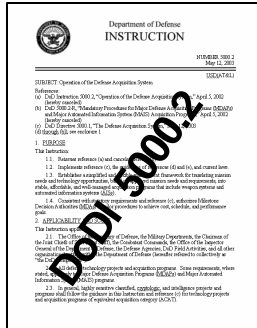
- E.1.20 Program Information



**“Complete and current program information is essential to the acquisition process.** Consistent with the tables of required regulatory and statutory information appearing in [DoD Instruction 5000.2], decision authorities shall require PMs and other participants in the defense acquisition process to present only the minimum information necessary to establish the program baseline, describe program plans, understand program status, and make informed decisions. The MDA shall “tailor-in” program information. IPTs shall facilitate the mangement and exchange of program information.”

# DoD Instruction 5000.2

- Table E3.T3. Contract Reporting Requirements

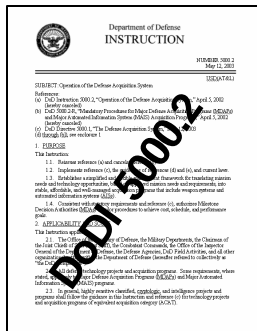


Required Report	Source	When Required
CCDR	DoD 5000.4-M-1 This Instruction	<ul style="list-style-type: none"> <li>• All major contracts and subcontracts, regardless of contract type, for ACAT I programs valued at more than \$50 million (FY2002 constant dollars)</li> <li>• Not required for contracts priced below \$7 million (FY2002 constant dollars)</li> <li>• The CCDD requirement on high-risk or high-technical-interest contracts priced between \$7 and \$50 million is left to the discretion of the Cost Working Integrated Product Team (IPT)</li> <li>• Not required for procurement of commercial systems, or for non-commercial systems bought under competitively awarded firm fixed-price contracts, as long as competitive conditions continue to exist.</li> </ul>



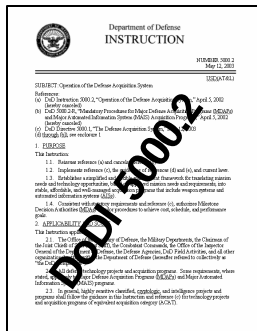
# DoD Instruction 5000.2

- Table E3.T3. Contract Reporting Requirements



Required Report	Source	When Required
SRDR	This Instruction	<ul style="list-style-type: none"> <li>All major contracts and subcontracts, regardless of contract type, for contractors developing/producing software elements within ACAT I and ACAT IA programs for any software development element with a projected software effort greater than \$25M (FY2002 constant dollars). Submit data on each software element at the following times: <ul style="list-style-type: none"> <li>-180 days prior to contract award</li> <li>-60 days after contract award</li> <li>-60 days after start of subsequent software releases</li> <li>-within 120 days after software release or final delivery</li> </ul> </li> </ul>

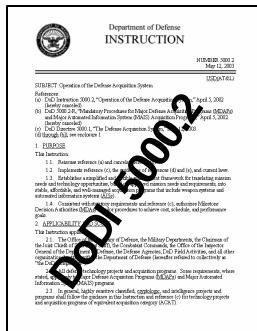
# DoD Instruction 5000.2



- E6.2. Cost Analysis Requirements Description (CARD).

*“For ACAT I and IA programs, the PM shall prepare, and an authority no lower than the DoD Component Program Executive Officer (PEO), shall approve the CARD. DoD 5000.4-M specifies CARD content. For joint programs, the CARD shall cover the common program as agreed to by all participating DoD Components, as well as any DoD Component-unique requirements. The teams preparing the program office LCCE, the component cost analysis, if applicable, and the independent LCCE shall receive a draft CARD 180 days, and the final CARD 45 days, prior to a planned OIPT or DoD Component review, unless the OIPT leader agrees to other due dates.”*

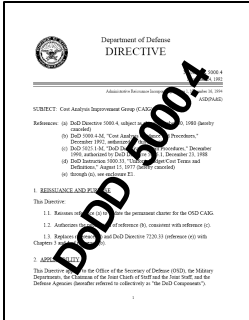
# DoD Instruction 5000.2



- E6.3. CCDDR System.

***“The CCDDR system is the primary DoD means of collecting data on the costs and resource usage that DoD contractors incur in performing DoD programs. The Chair, CAIG, shall prescribe a format for the CCDDR and the SRDR, and establish reporting system policies in DoD 5000.4.M-1. The Chair shall monitor the implementation of policy to ensure consistent and appropriate application throughout the Department of Defense. The Chair may waive the information requirements of Table E3.T3. of enclosure 3.”***

# DoD Directive 5000.4



- *4.1.7.1. The decision to incorporate parts of the POE or the DoD CCA shall be based on such evidence, as follows:*

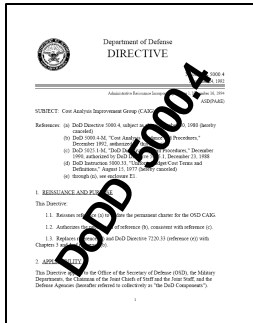
*4.1.7.1.1. Current prices or **realized costs**;*

*4.1.7.1.2. **Cost incurred on similar programs**; or*

*4.1.7.1.3. A verification based on experience that the methods and data used in constructing the portion accepted are reasonable.*

***The overall objective of the CSDR process is to obtain valid, well-defined, historical cost data reports in order to fulfill this DoD Directive!!!***

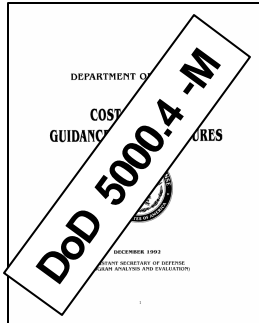
# DoD Directive 5000.4



***“4.2.8. Establish policy guidance on the Contractor Cost Data Reporting System, and monitor its implementation to ensure consistent and appropriate application throughout the Department of Defense, as required by DoD 5000.2-M, Part 20, paragraph 3.a.”***

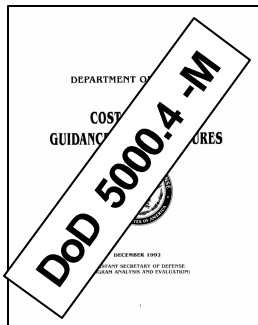
*Note: DoD 5000.2-M has been rescinded and no longer exists. The DoD 5000.2-M has been replaced by DoD 5000.1 and DoD 5000.2-R.*

# DoD 5000.4-M



- DoD 5000.4-M "Cost Analysis Guidance and Procedures," provides cost estimating guidance
  - scope of cost analysis including system description and WBS
  - the analytical methods to be used in preparing cost estimates
  - direction on reliance and use of cost actuals in estimating future system production costs
- ***“Actual cost experience** on prototype units, early engineering development hardware, and early production hardware for the program under consideration should be used to the maximum extent possible from CCDR”...*
- *“...projections of **cost actuals** will be predominantly used for preparing estimates for Milestone III and subsequent reviews.”*

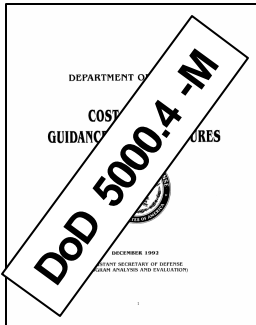
# DoD 5000.4-M



- C1.5 Contents of a CARD

*“12.0 Contractor Cost Data Reporting (CCDR) Plan. This section contains a copy of the CCDR Plan approved for the program. If the Plan has not yet been approved, include a copy of the proposed CCDR Plan as submitted to the OSD CAIG (or the designated Service CCDR focal point, if the program is an ACAT II, III, or IV program).”*

# DoD 5000.4-M

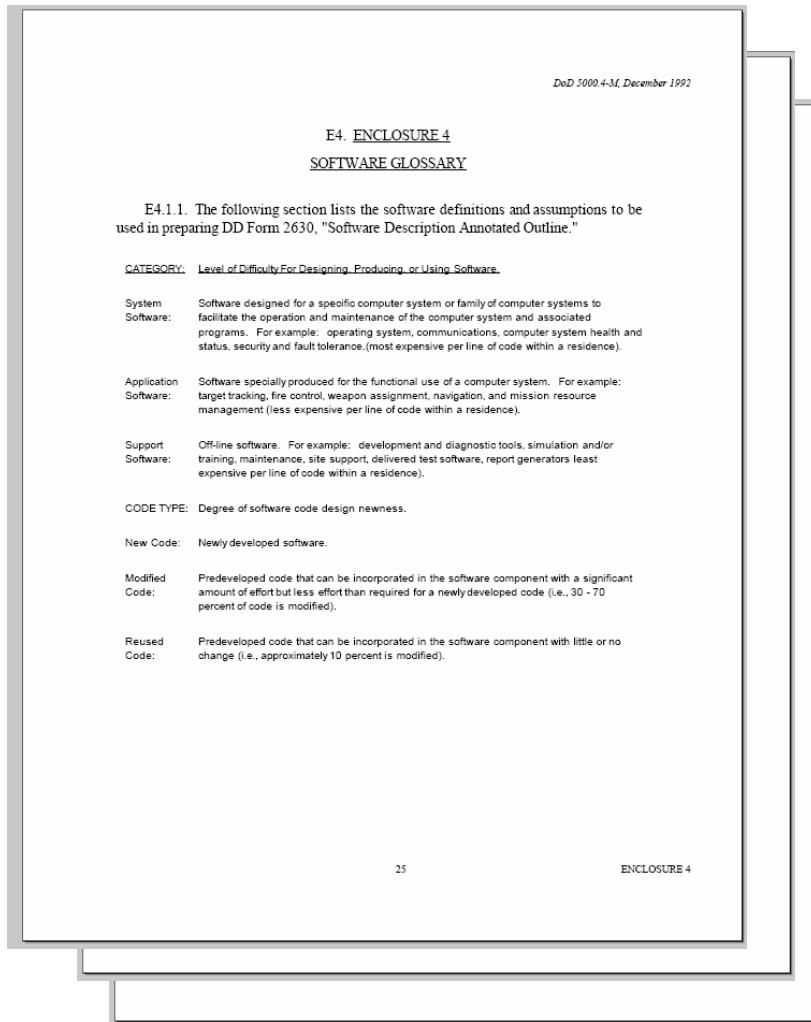


- C1.5 Contents of a CARD
  - Outline of CARD Basic Structure
    - 1.1.3 System Configuration

*“This section identifies the equipment work breakdown structure (WBS) for the system. If there is an approved CCDR Plan for the system, **the WBS in the Plan should be the basis for the WBS presented here.** ... Any differences between the WBS presented in this section and the WBS in the CCDR Plan should be identified and explained.”*

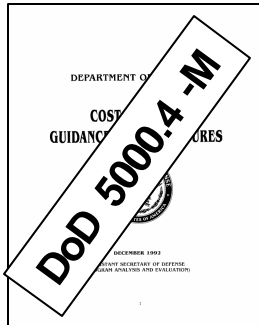


# DoD 5000.4-M



- Enclosure 4 lists the software definitions and assumptions to be used in preparing the SRDR, DD Form 2630.

# DoD 5000.4-M

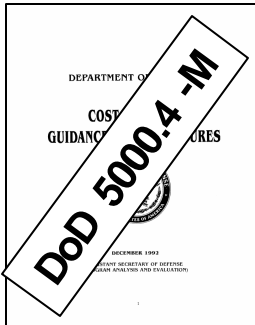


- C2.1.3.1. Research and Development (R&D).

*“The cost of all R&D phases (i.e., Concept Exploration and Definition, Demonstration and Validation, and Engineering and Manufacturing Development) should be estimated beginning with program initiation through development. **Nonrecurring and recurring R&D costs for prototypes, engineering development equipment and/or test hardware (and major components thereof) should be shown separately.** Contractor system test and evaluation and Government support to the test program should be fully identified and estimated. Support, such as support equipment, training, data, and military construction should be estimated. The cost of all related R&D (such as redesign and test efforts necessary to install equipment or software into existing platforms) should be included. **Appropriate use of Contractor Cost Data Reporting (CCDR) will be made in reflecting actual costs and projecting future costs (see Part 20 of DoD 5000.2-M).**”*

*Note: DoD 5000.2-M has been rescinded and no longer exists. The DoD 5000.2-M has been replaced by DoD 5000.1 and DoD 5000.2-R.*

# DoD 5000.4-M

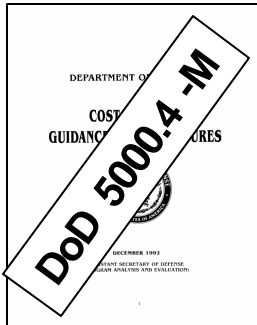


- C2.1.3.2. Investment.

*“The cost of investment (i.e., Low-Rate Production, and Production and Deployment phases) should include the total cost of procuring the prime equipment and its support; e.g., command and launch equipment; support equipment; training; data; initial spares; war reserve spares; preplanned product improvement (P3I) program; and military construction. The cost of all related procurement (such as, modifications to existing aircraft or ship platforms) should be included. **Nonrecurring and recurring costs for the production of prime equipment and major support equipment should be shown separately. Appropriate use of CCDR will be made in reflecting actual costs and projecting future costs (see Part 20 of DoD 5000.2-M).**”*

*Note: DoD 5000.2-M has been rescinded and no longer exists. The DoD 5000.2-M has been replaced by DoD 5000.1 and DoD 5000.2-R.*

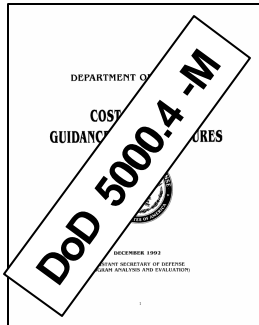
# DoD 5000.4-M



- C2.2.1. Estimating Approaches.

*“The techniques used to develop the cost estimates shall take into account the stage of the acquisition cycle that the program is in when the estimate is made (such as, demonstration and validation, engineering and manufacturing development, or production). Until actual cost data are available, the use of parametric (statistical) costing techniques is the preferred approach for the development of the cost estimates. It is expected that heavy reliance will be placed on parametric, as well as analog and engineering methods, for Milestone I and II reviews, while **projections of cost actuals will be predominately used for preparing estimates for Milestone III and subsequent reviews.** A comparison of several cost estimating methods is encouraged.”*

# DoD 5000.4-M

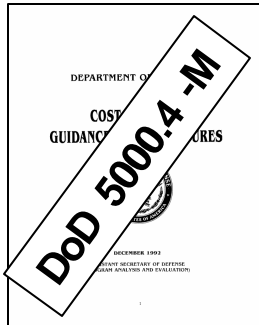


- C2.2.4. Actual Costs.

**“Actual cost experience on prototype units, early engineering development hardware, and early production hardware for the program under consideration should be used to the maximum extent possible from CCDR (see Part 20 of DoD 5000.2-M and the CCDR system pamphlet and other data sources). If development or production units have been produced, the actual cost information will be provided as part of documentation. Estimates for Milestone III reviews must be based at least in part on actual production cost data for the systems under review.”**

*Note: DoD 5000.2-M has been rescinded and no longer exists. The DoD 5000.2-M has been replaced by DoD 5000.1 and DoD 5000.2-R.*

# DoD 5000.4-M

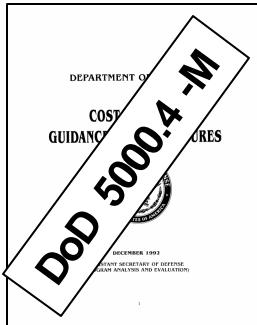


- C2.3.8. Estimate Detail.

*“The cost category breakout at the summary levels shall be consistent with the examples on Tables C2.T2., C2.T3., and C2.T4. of this Manual. **Further breakout shall be in accordance with the approved CCDR Data Plan** (Part 20 of DoD 5000.2-M), and the Operating and Support Cost-Estimating Guide.”*

*Note: DoD 5000.2-M has been rescinded and no longer exists. The DoD 5000.2-M has been replaced by DoD 5000.1 and DoD 5000.2-R.*

# DoD 5000.4-M

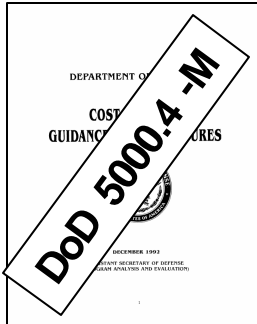


- C2.3.11. CCDR Status.

***“The status of the CCDR Data Plan, or, if implemented, the status of CCDR reporting and the processing of the cost data on the defense program being reviewed shall be presented to the CAIG (see Part 20 of DoD 5000.2-M and the CCDR system pamphlet). If the actual costs of the prototype and development hardware are used as the basis for projections, the supporting cost-quantity curves shall be presented.”***

*Note: DoD 5000.2-M has been rescinded and no longer exists. The DoD 5000.2-M has been replaced by DoD 5000.1 and DoD 5000.2-R.*

# DoD 5000.4-M



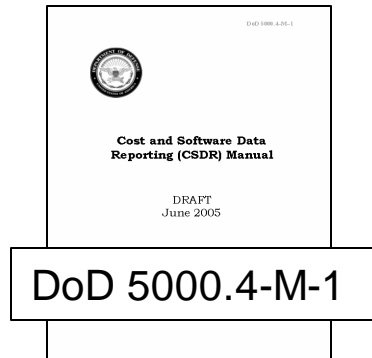
- C2.4.2. Cost Analysis Requirements Description.

*“The program office (or DoD Component designated office) responsible for the program shall write a detailed statement of the scope of the estimates to be made for each of the alternatives to be presented. (See section C2.1., above) **This Cost Analysis Requirements Description (CARD) statement shall be used by both the program office (or DoD Component designated office) and the DoD CCA teams in preparing their estimates.** A copy of the preliminary CARD, approved by the Program Executive Officer, shall be submitted to the CAIG at the CAIG kick-off meeting. A final copy should be provided to the CAIG no later than 45 days before the scheduled DAB Committee review. (CARD guidance is provided in Chapter 1 of this Manual.)”*

*Note: The kick-off meeting occurs 180 days prior to the DAB review.*



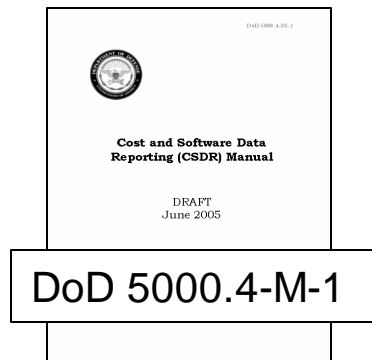
# DoD 5000.4-M-1



- FOREWORD

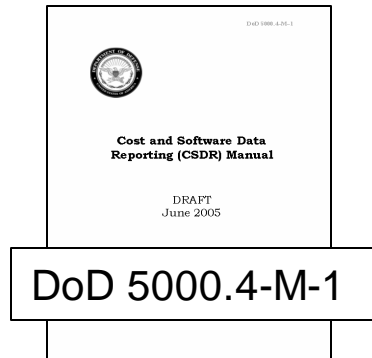
- *[DoD 5000.4-M-1] serves as the primary requirements document for the development, implementation, and operation of the CCDR and SRDR systems.*
- *[DoD 5000.4-M-1] prescribes specific policies, procedures, and instructions that Government stakeholders in the CCDR and SRDR processes must follow. It also indicates the reporting provisions the stakeholders must include in contractual documents where appropriate.*

# DoD 5000.4-M-1



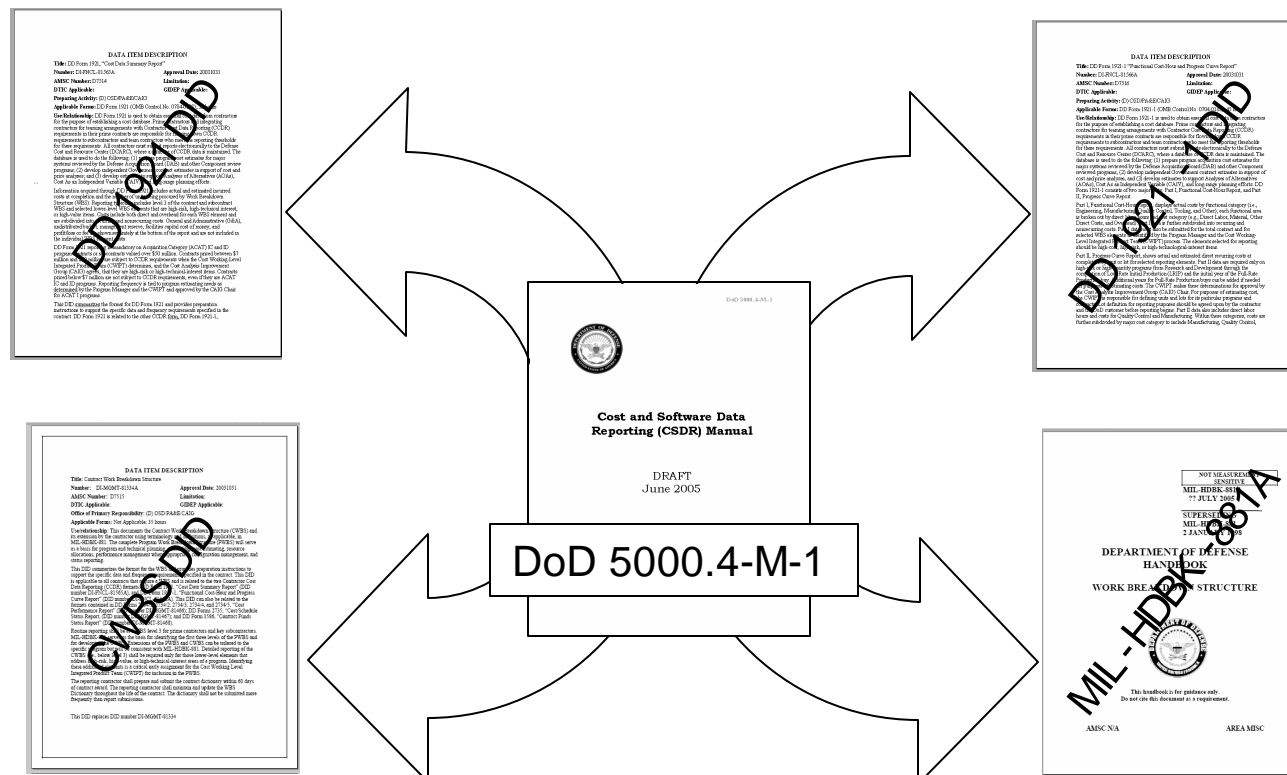
- FOREWORD (cont.)
  - *The procedures in the Manual apply to the Office of the Secretary of Defense, the Military Departments, the Chairman of the Joint Chiefs of Staff, the Combatant Commands, the Office of Inspector General of the Department of Defense, the Defense Agencies, the DoD Field Activities, and all other organizational entities within the Department of Defense.*
  - *While the Manual is not contractually binding, it becomes mandatory when referenced or included in contracts such as DD Form 1423-1, "Contract Data Requirements List (CDRL), and the Data Item Description (DID).*

# DoD 5000.4-M-1



- Table of Contents
  - *Chapter 1: Introduction and Background*
  - *Chapter 2: Reporting Requirements*
  - *Chapter 3: Stakeholder Responsibilities*
  - *Chapter 4: Processing and Activities*
  - *Chapter 5: Planning and Contracting*
  - *Chapter 6: Reporting Guidance*
  - *Chapter 7: Defense Automated Cost Information Management System (DACIMS)*

# Supporting Documentation



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Module 2: Background & Familiarization

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# CSDR Family of Forms

## PLANNING

DD 2794 (Program)  
DD 2794 (Contract)

## CONTRACTING

DD 1423-1 (CDRL)

## COST REPORTING

DD 1921

DD 1921-1 (Part I)

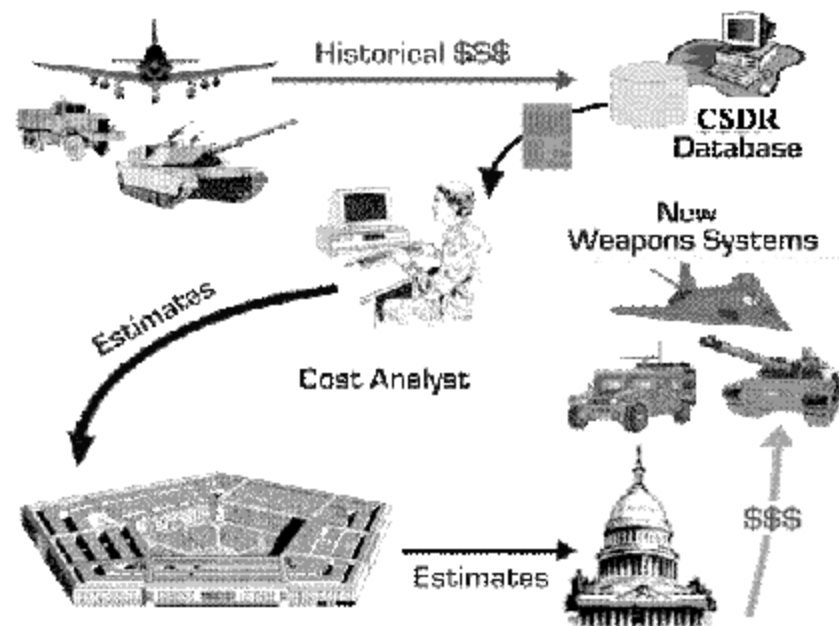
DD 1921-1 (Part II)

## SOFTWARE REPORTING

DD 2630-1  
DD 2630-2  
DD 2630-3

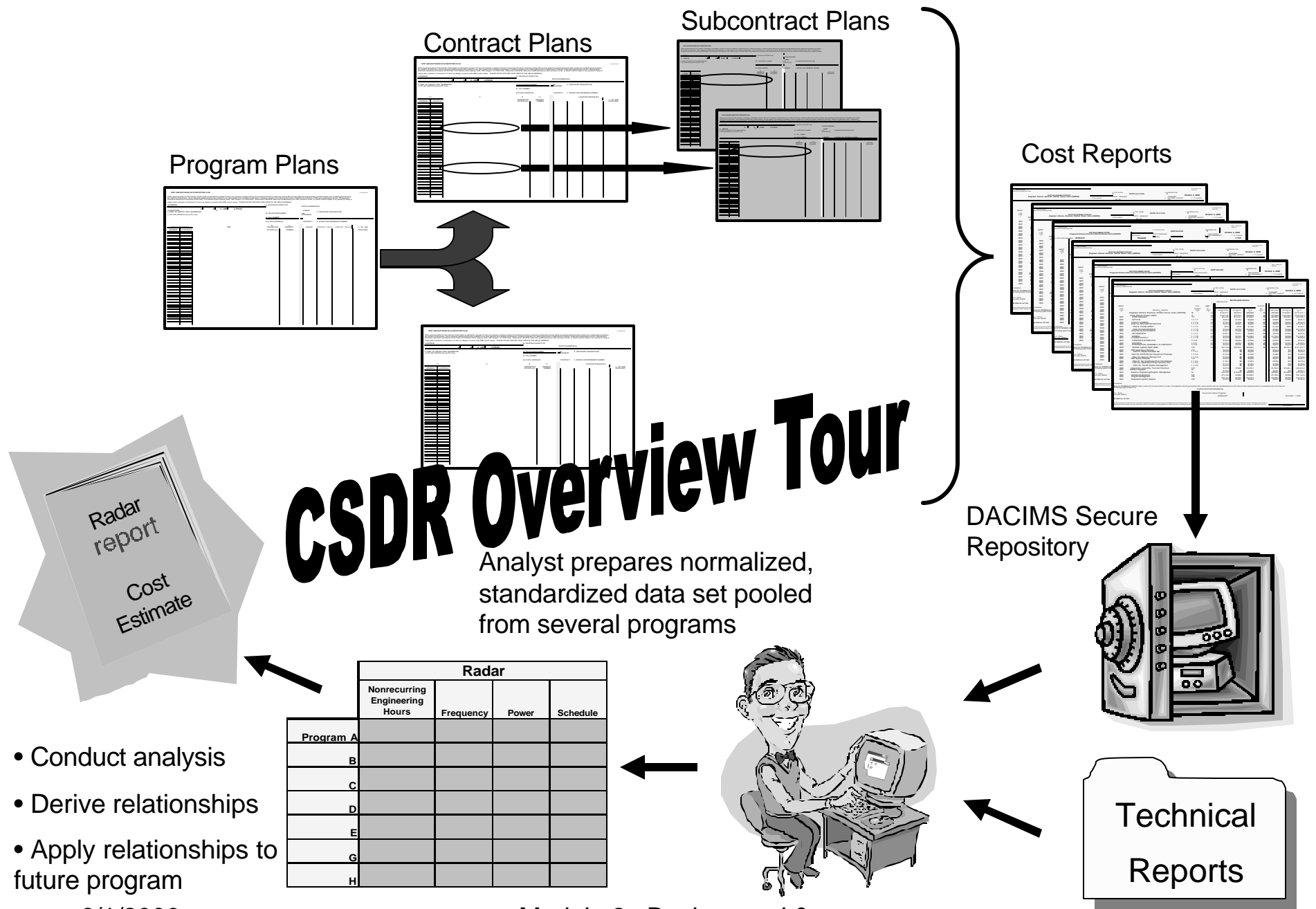
# Why Collect Contractor Cost & Software Data?

- DoD 5000.1, 5000.2, and 5000.4 require it, but more importantly:
  - CSDRs provide the basis of cost estimates of future systems
    - Long and painful DoD experience has shown that “actual” cost of producing systems are, by far, the best basis for cost estimates
  - Credible cost estimates lead to realistic budgets and executable programs
- CCDRs are DoD’s only systematic mechanism for capturing definitionally consistent actual cost data across weapon system commodities



# Cost Analyses facilitated with CSDRs

- Learning and Rate Curve Analysis
- Development of cost factors
- Time-phasing of non-recurring engineering hours
- Unit cost analysis
- Development to production step-down
- Analysis of labor/overhead rates



6/1/2006

Module 2: Background & Familiarization



# INDIVIDUAL REVIEW SESSION

## 15 MINUTES

- *To prepare for the interactive exercises within the upcoming training modules, you will need to be familiar with the contents of the CSDR reference documents provided.*
- **Classroom Study:** *Please review the reference materials provided in your CSDR Reference Book by paging through to get a feel for how the material is organized and where you might find information on specific subject areas. (Take special note of DoD 5000.4-M-1 and of the various DIDs).*
- **Independent Study:**
  - CSDR Workbook
    - OSD PA&E Briefing, *Legal Foundations for the Role of Cost Analysis in Defense Acquisitions*, Jim Wilson
  - Internet
    - United States Code, 2000 Edition, Title 10, Subtitle A, Part IV, Chapter 144 ([http://www.access.gpo.gov/uscode/title10/subtitlea\\_partiv\\_chapter144.html](http://www.access.gpo.gov/uscode/title10/subtitlea_partiv_chapter144.html))

# Questions / Discussion / Review

- At this point, you should:
  - *Be familiar with all the pertinent DoD Directives, Instructions, and Manuals that precede the CSDR Manual;*
  - *Have a general understanding of how CSDR data benefits the cost analysis community as well as the overall acquisition process;*
  - *Be able to describe the CSDR process from a top-level point of view*

# For more information...

- **Read:**

- **CSDR Reference Book**

- **CSDR Workbook**

- OSD PA&E Briefing, *Legal Foundations for the Role of Cost Analysis in Defense Acquisitions*, Jim Wilson

- **Internet**

- United States Code, 2000 Edition, Title 10, Subtitle A, Part IV, Chapter 144  
([http://www.access.gpo.gov/uscode/title10/subtitlea\\_partiv\\_chapter144\\_.html](http://www.access.gpo.gov/uscode/title10/subtitlea_partiv_chapter144_.html))